

Signaling effected by:
 (1) receptor clustering
 (2) localization of additional signal, or
 (3) increased local concentration

Bacterial Chemotaxis
 Neutrophil Chemotaxis
 Apoptosis

Vaccines
 Therapeutics (Anticancer agents,
 Antibiotics)

Signaling through one
 receptor type effected by:
 (1) clustering of second receptor type
 (2) localization of second signal, or
 (3) increased local concentration
 of second signal

Dual Signals (Bacterial Chemotaxis)

Vaccine Adjuvants
 Immune Modulators

Assembly of macromolecules:
 (1) a plurality of the same
 macromolecules
 (2) a plurality of different
 macromolecules - randomly
 ordered or selectively
 ordered on scaffold

Lectin aggregation
 Cell aggregation (erythrocyte or
 Jurkat)

Diagnostic Assays
 Cancer Therapy
 Pathogen Clearance

FIG 1

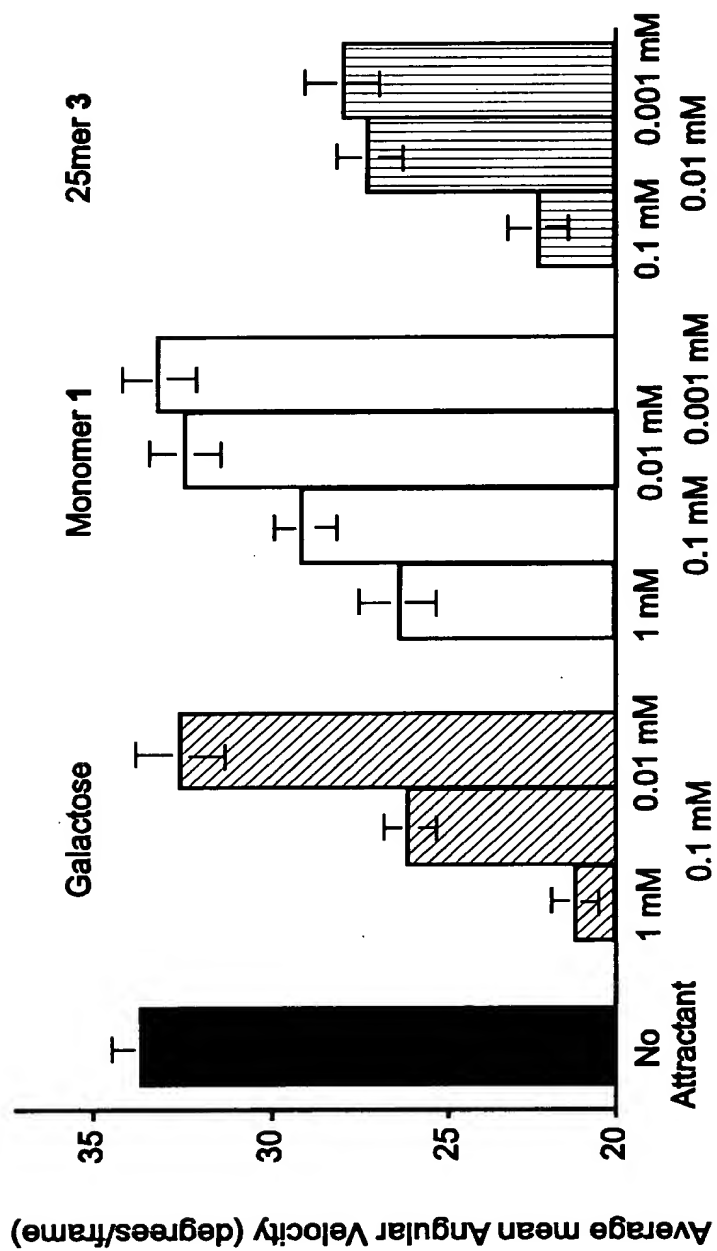


FIG. 2A

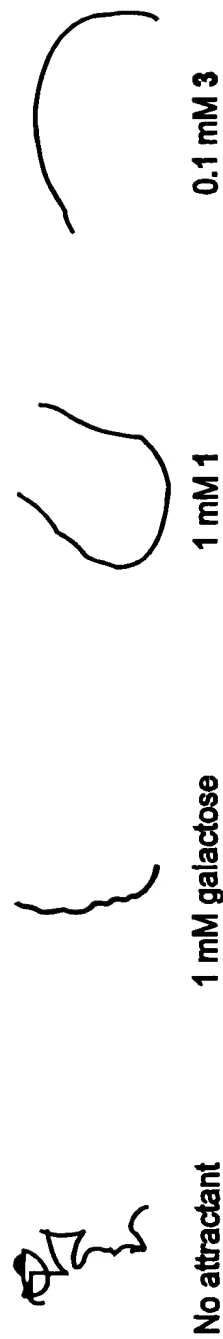
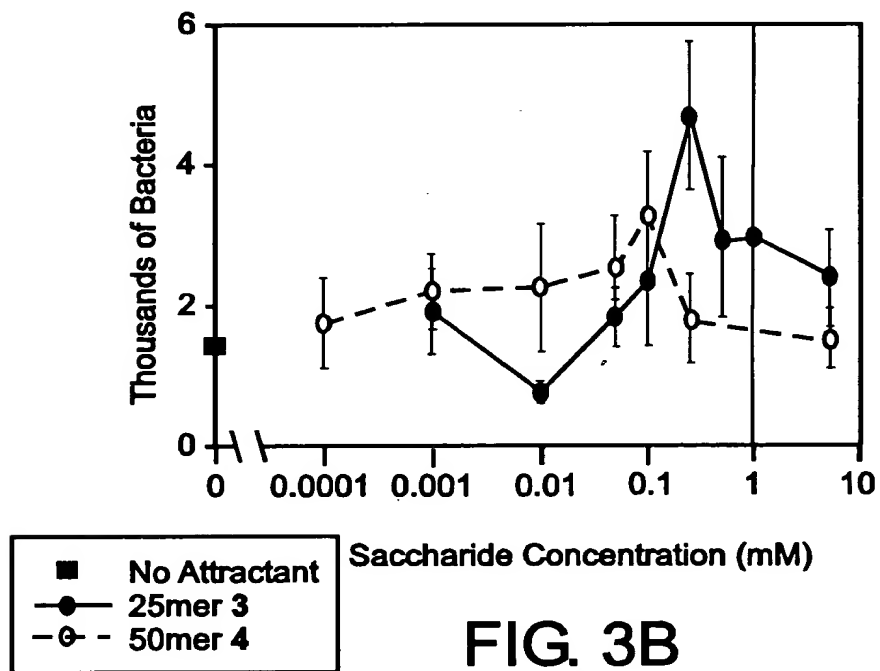
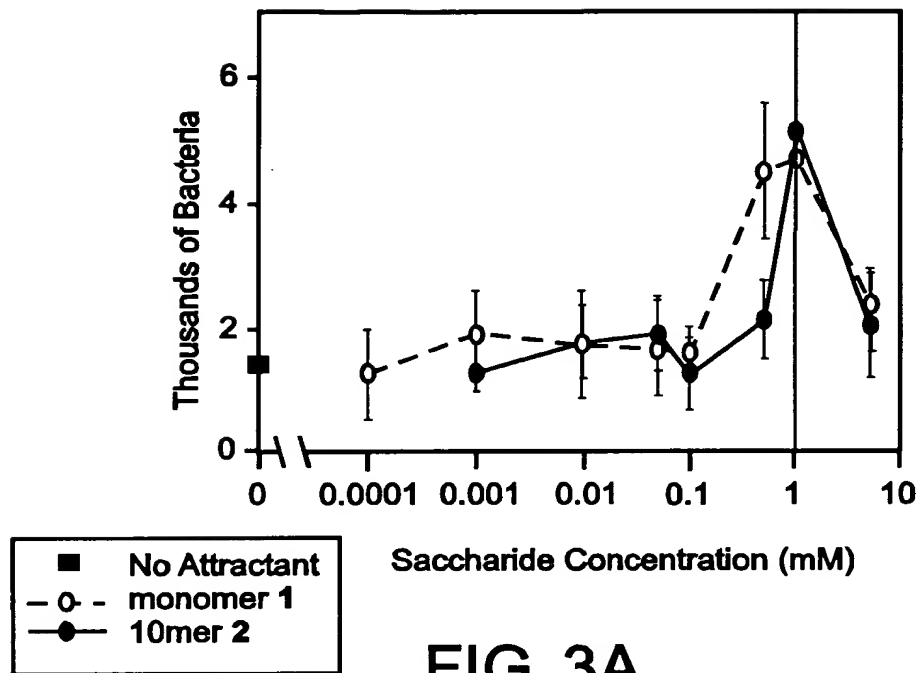


FIG. 2B

FIG. 2C

FIG. 2D

FIG. 2E



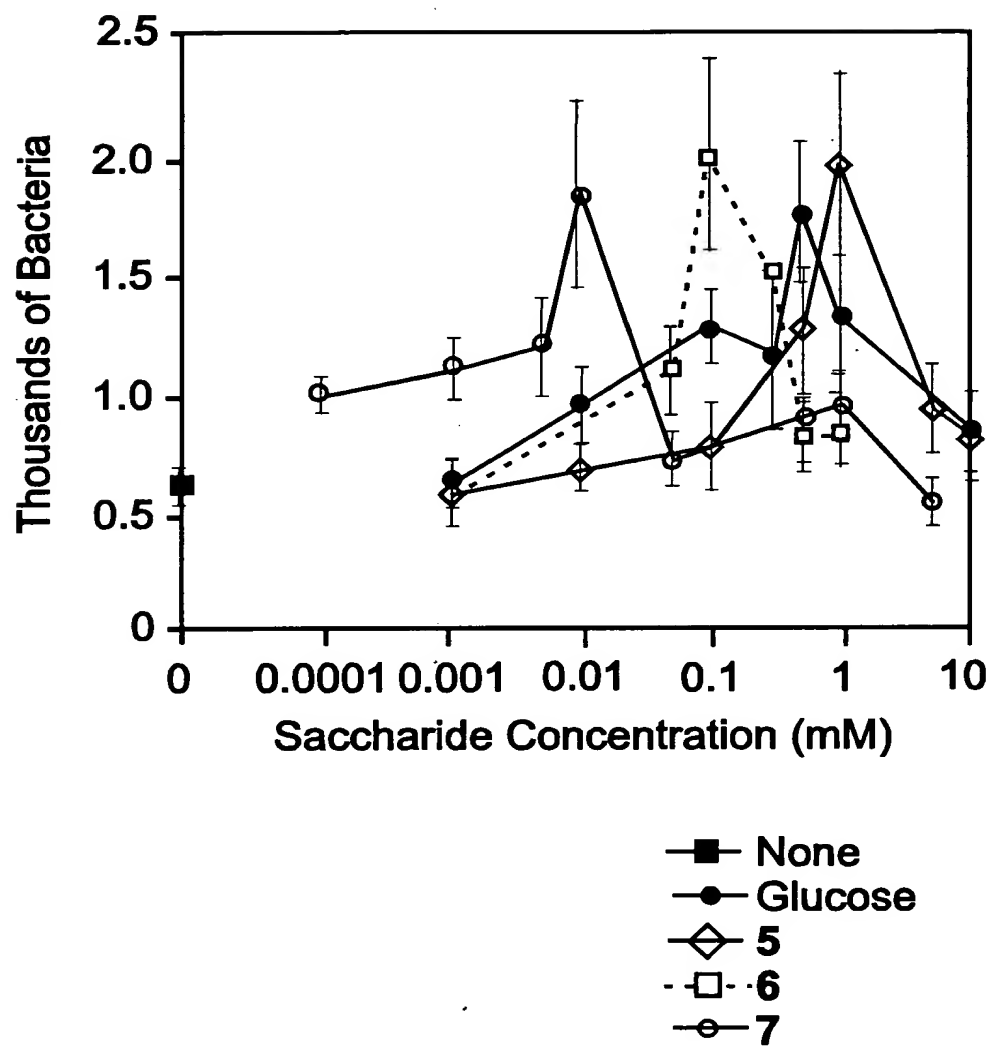


FIG. 4

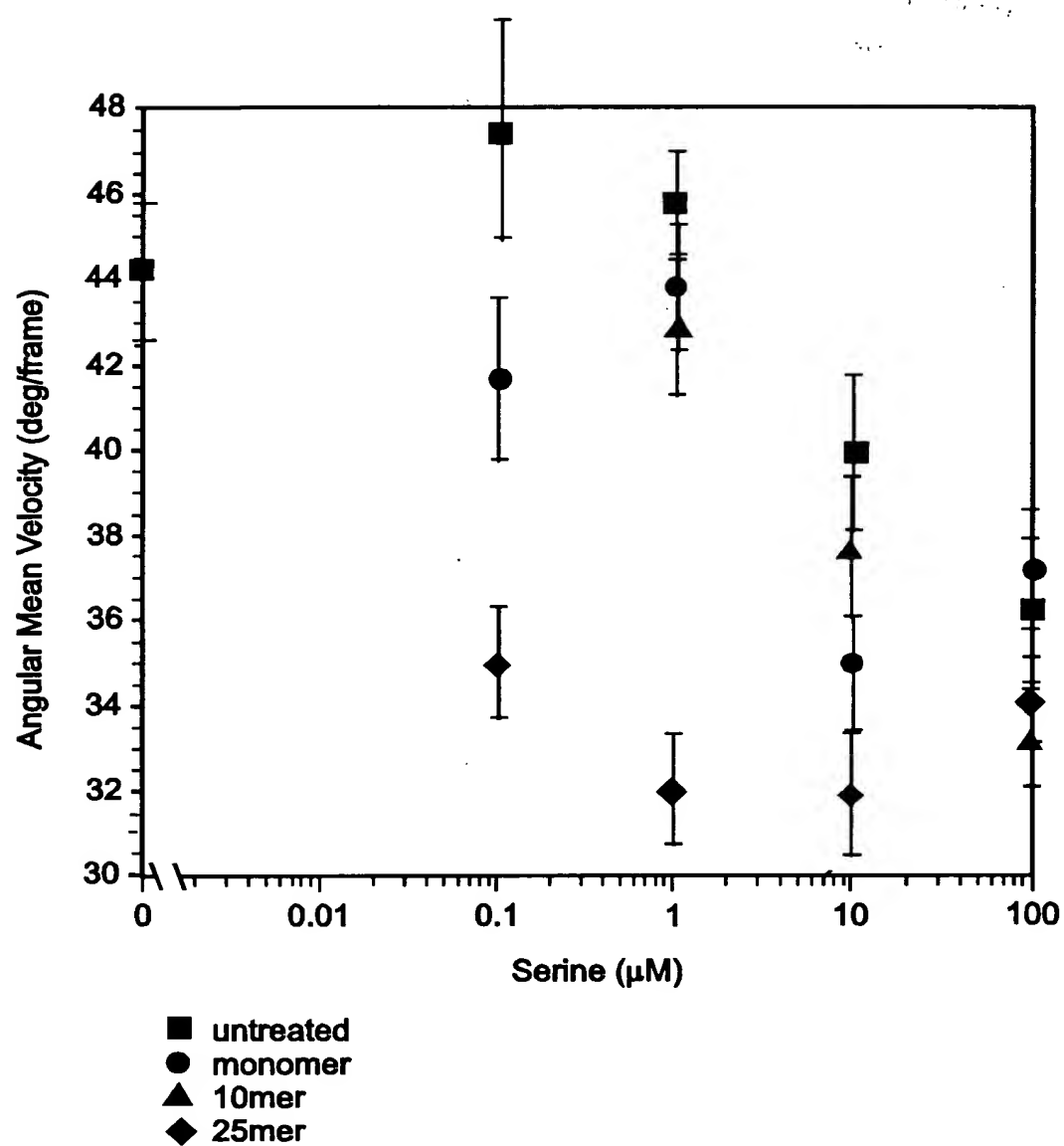


FIG. 5A

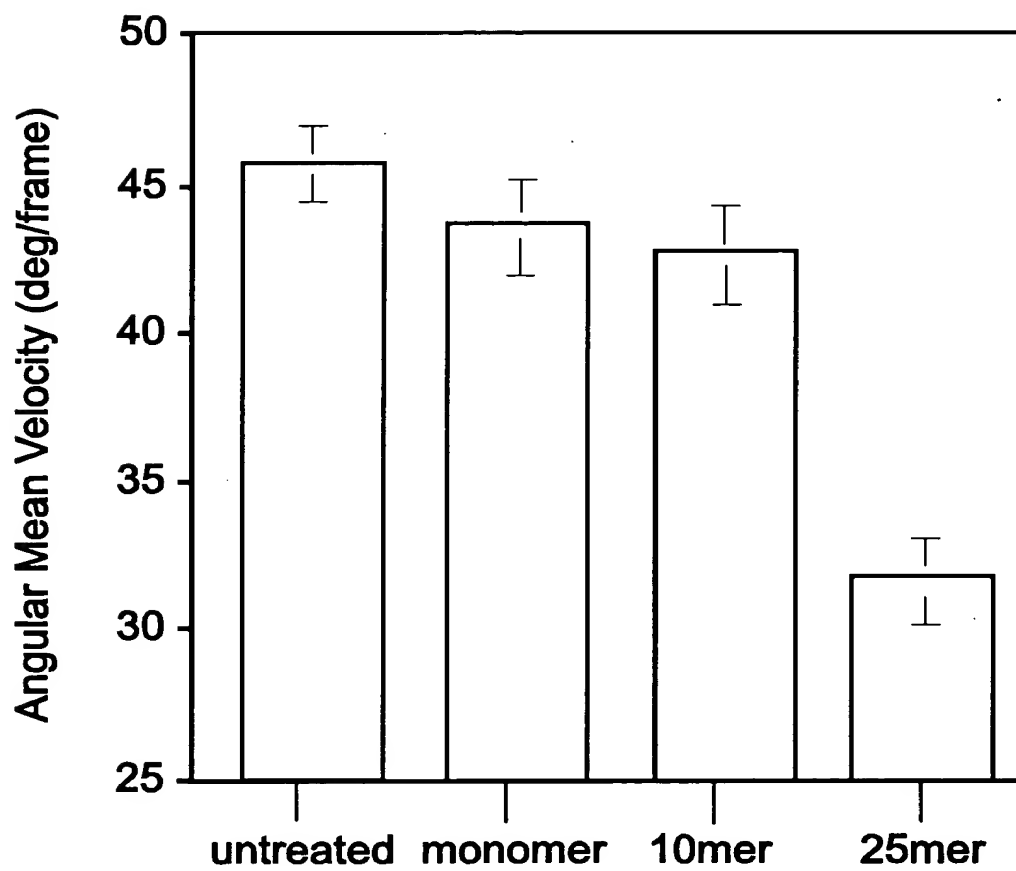


FIG. 5B

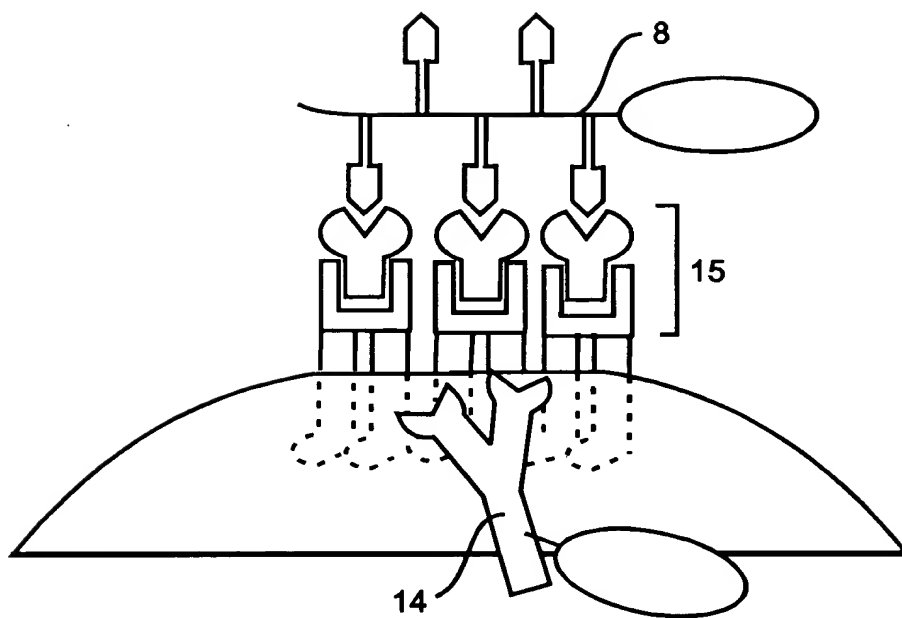


FIG. 6

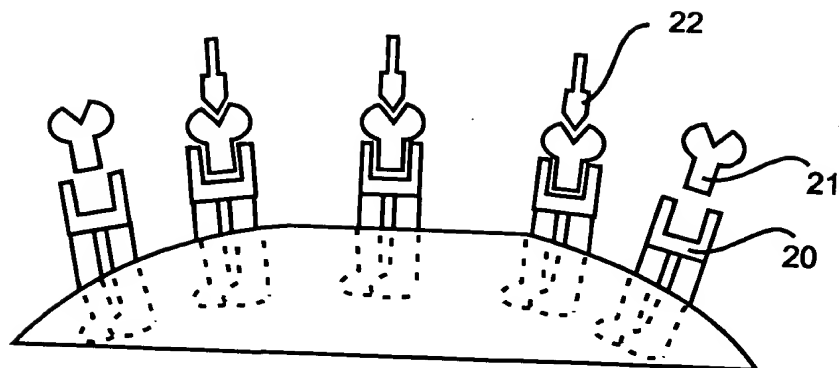


FIG. 7A

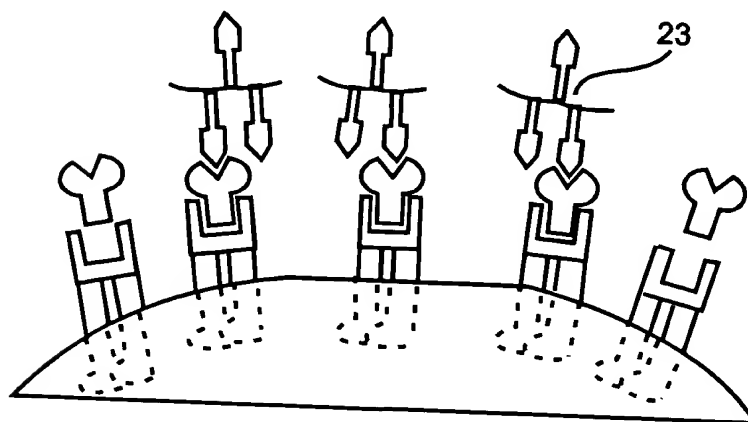


FIG. 7B

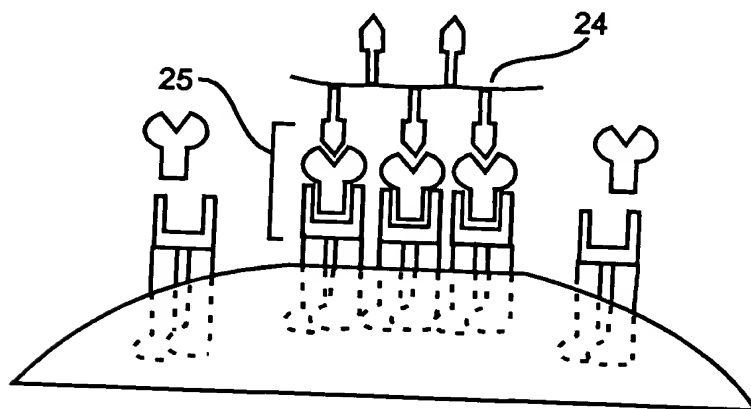


FIG. 7C

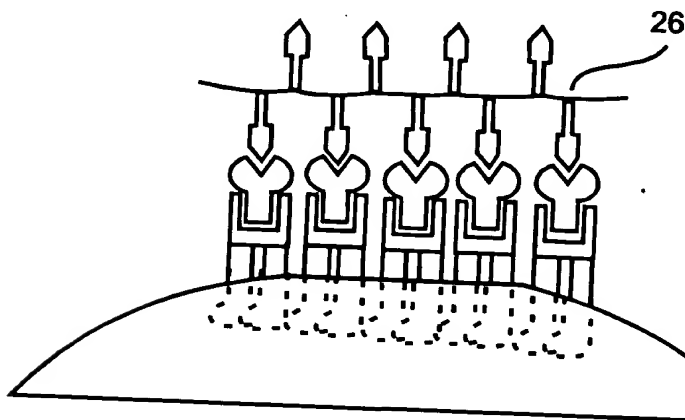
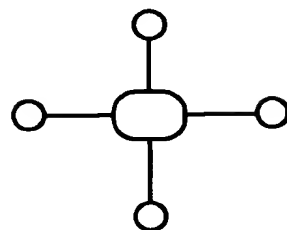
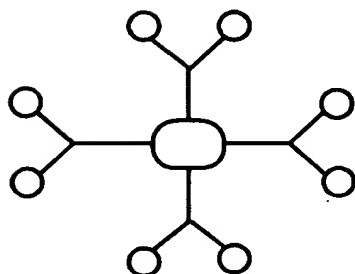
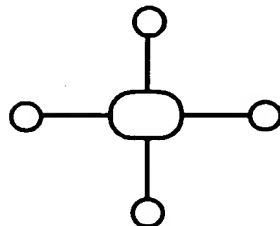
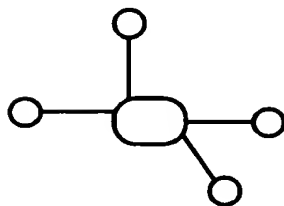
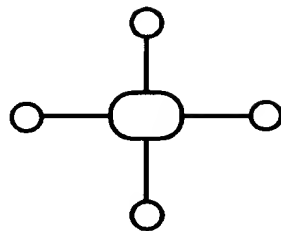
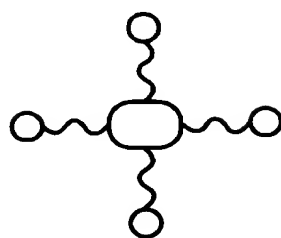
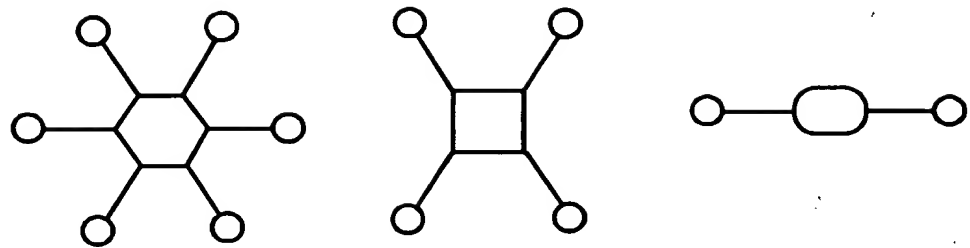


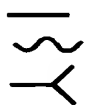
FIG. 7D



○ recognition element



scaffolds



linkers

FIG. 8

FIG. 9A

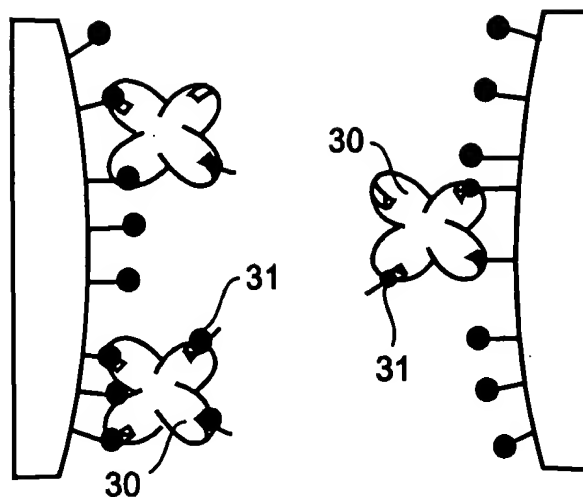


FIG. 9B

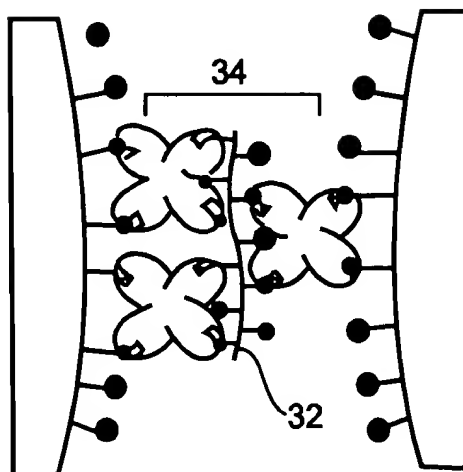
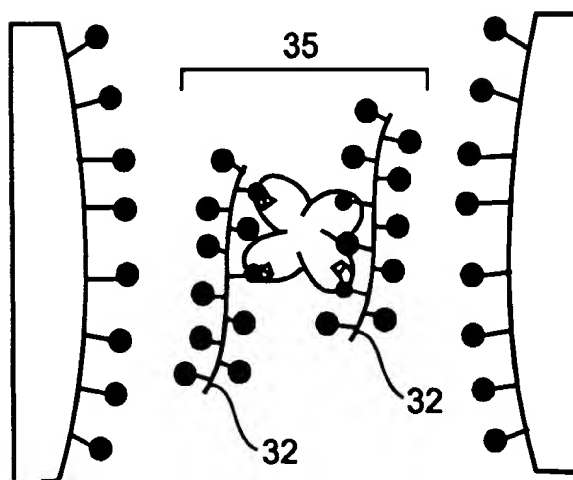


FIG. 9C



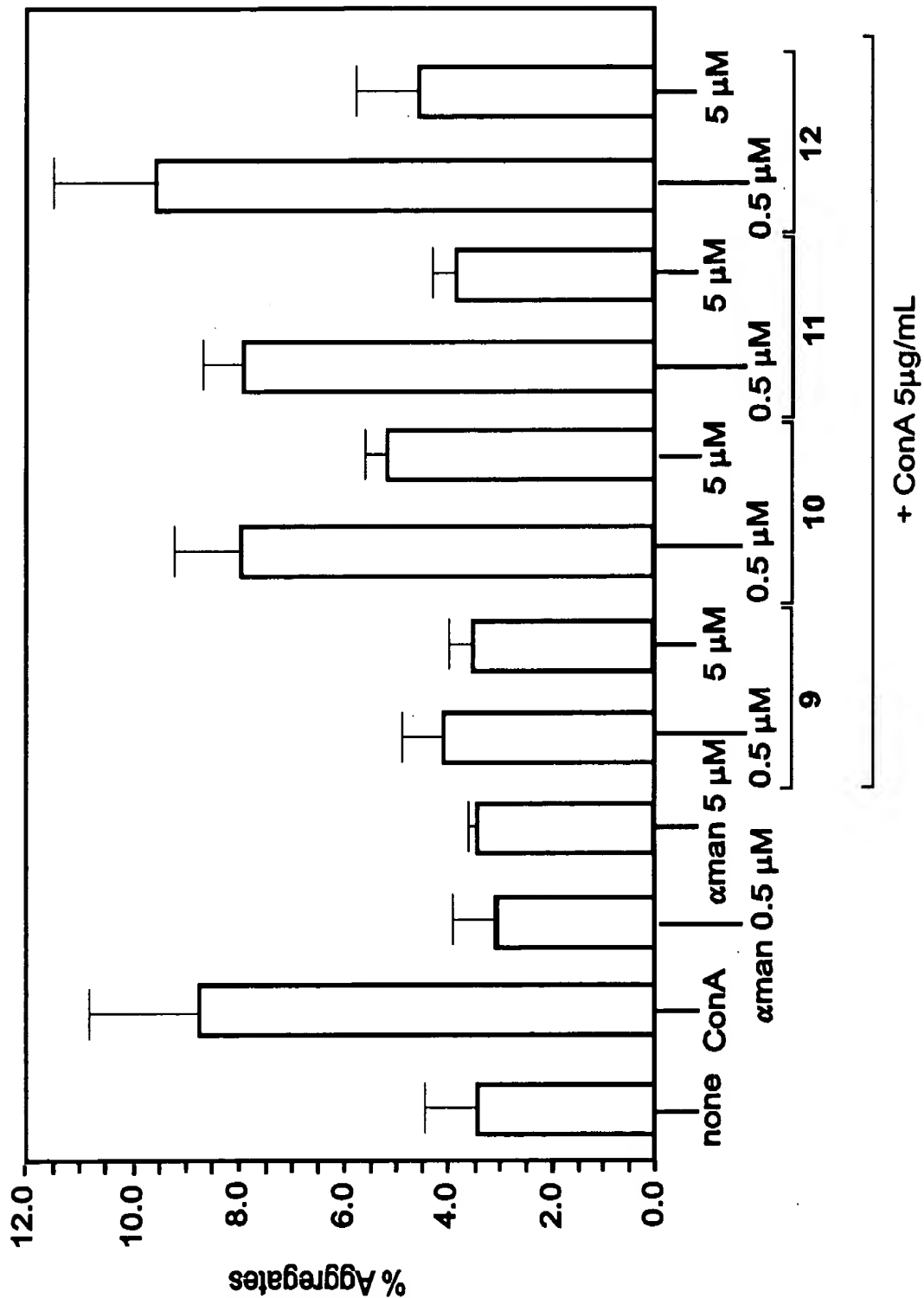


FIG. 10

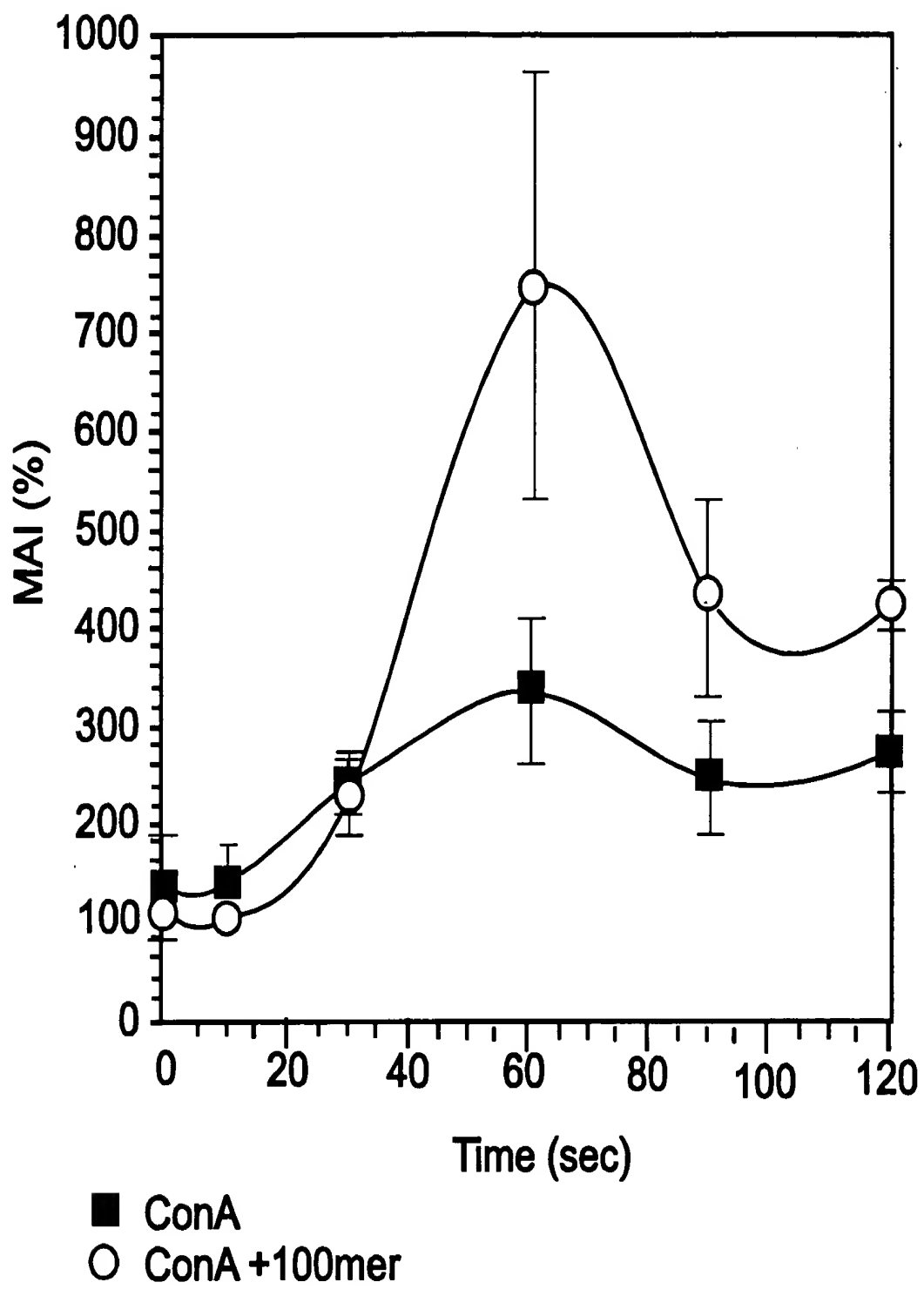


FIG. 11

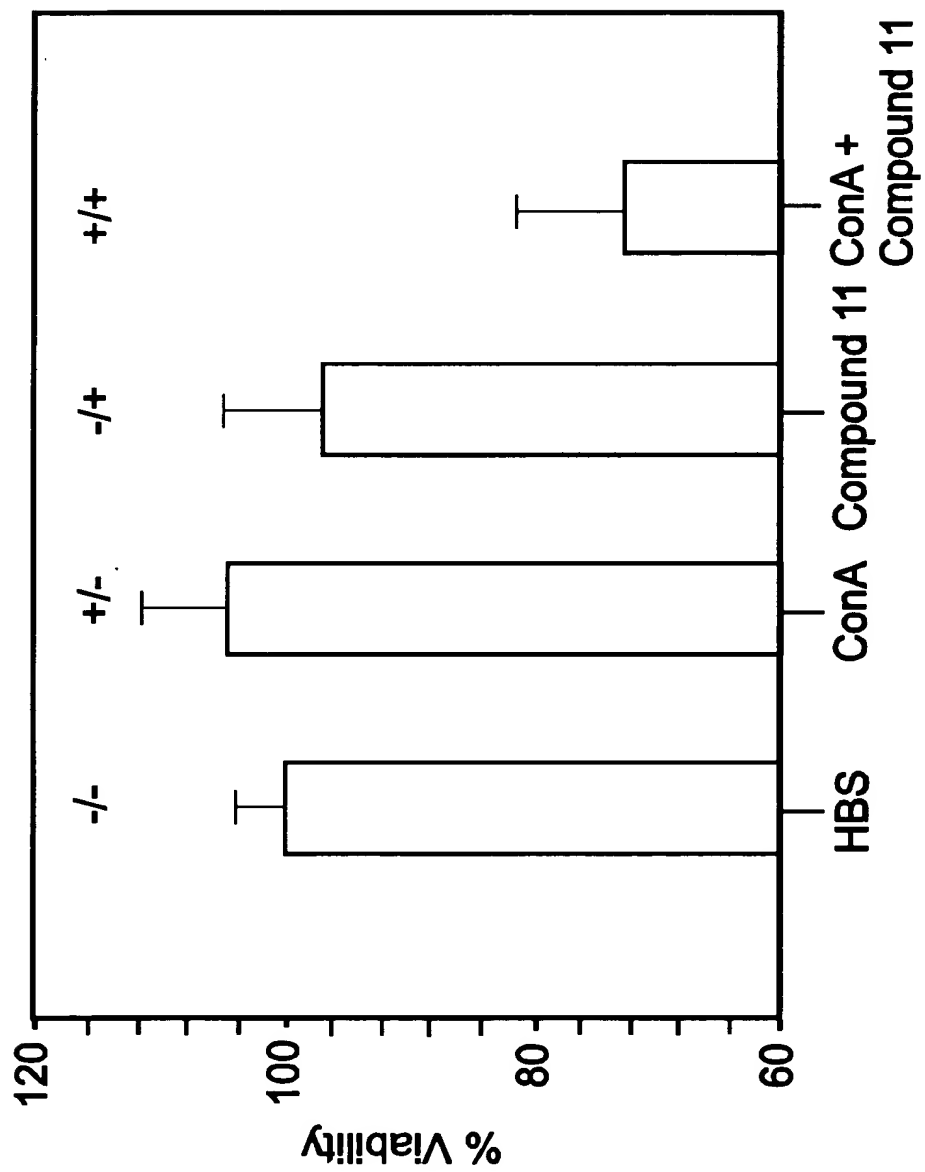


FIG. 12